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A system designed to provide a framework for the individualization of reading instruction is discussed. The heart of the system is a mastery checklist of reading skills for each child which provides teachers with a means for discovering the specific skill needs of their students. Initially, the system depended upon individual assessment exercises as the main source of specific skill measurement, but because the administration of these exercises was not an efficient use of time, work began on group assessment exercises designed to test the same skills. A discussion of the construction, format, and revision of these group prototypic assessment exercises measuring word attack, comprehension, and study skills is presented, and it is noted that information from the exercises provides a basis for appropriate choices of instructional approaches and of materials for each student. Sample exercises and checklists are provided. One reference is included. (RT)

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EVALUATION OF READING SKILLS IN THE WISCONSIN PROTOTYPIC SYSTEM OF READING INSTRUCTION

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EVALUATION OF READING SKILLS IN THE WISCONSIN PROTOTYPIC SYSTEM OF READING INSTRUCTION

(Session: Films and Illustrated Lectures,
9:00 - 10:00 a.m., Thursday, May 1, 1969)

The intent in developing the prototypic system of reading instruction has been to provide a framework for the individualization of instruction - to provide a bookkeeping system or a mastery checklist for the reading skills of the individual pupil. The essential purpose, then, is to provide teachers with a means for discovering the specific skill needs of their pupils. The heart of the system is a skills outline which is the basis for the record that is kept for each child. Individual records are kept on file folders and include the following reading skills outlined under six major areas.

These file folders are intended to be part of the child's permanent record which is to go with him from grade to grade. Each new teacher is not obliged, then, to rediscover what each child knows

or does not know; to focus upon a child's instructional needs she needs only to refer to the folder, teach or reteach the skills in which there are deficiencies, and keep the individual folders up to date.

In order that the folder might accompany the child and be meaningful to his next grade's teacher, some standards of skill mastery had to be devised. It is at this point that "Evaluation of Reading Skills in the Wisconsin Prototypic System of Reading Instruction," our topic for this session, becomes relevant.

Initially, the Protytypic System depended upon the Individual Assessment Exercises as the main source of behavior sampling from specific skill areas. These exercises are "individual" in the sense that they were designed to be administered individually (on a one-to-one basis) and are "exercises" in the sense that they were to be considered by the teacher as just one of the many samples of behavior necessary for judgment of skill mastery. Observation of daily work and judgment of mastery on similar types of learning exercises were to temper the results gotten from the Individual Assessment Exercises. Secondarily, but equally importantly, these exercises were also to serve as models or prototypes of materials that the teacher could use in the instruction of specific skills. The exercises followed the outline of skills.

The field tryout of the early Prototypic System led to the conclusion that the individual administration of the exercises was not an efficient use of time. Teachers found that some of the exercises

were administerable in a group situation. They used the exercises in that fashion but asked for a complete group assessment instrument.

It was due to these observations in the pilot schools that work on group assessment exercises was initiated. The original idea was that these exercises would serve a function similar to the Individual Assessment Exercises, but that the group exercise would supplement rather than supplant the individual exercises. Therefore, skills which could not be measured in a group situation without doing violence to the concept were simply not included in the group exercise. Likewise, scoring ease was not allowed to dictate the forms of the exercises and, ultimately, the types of information which could be gleaned from them. The idea that the exercises were to provide just one sample of skill development and that the teachers were to supplement the knowledge gotten from the exercise with other observations was adhered to.

According to these criteria work began on the prototypic group assessment exercises in January, 1968, and reached fulfillment in June of the same year. It seemed desirable to provide this collection of exercises with a name. The title "Wisconsin Expanding Inventory of Reading Development" was chosen - not only because of the delightful acronym which it yielded (WEIRD) but also because it avoided calling the instrument a test, and thereby, we hoped, would help the instrument avoid some of the abuses to which tests are subjected.

As already mentioned, WEIRD was constructed to parallel the Individual Assessment Exercises and to sample the same behaviors.

The same areas - word attack, comprehension, and study skills - were retained in its organization. Small clusters of items, usually containing from 5 to 10 items, provided for the sampling of specific skill mastery. In all, fourteen booklets were created. The first twelve cover the three skill areas in levels A, B, C, and D, and cover the skills normally taught in kindergarten through grade three. The remaining two cover the skills in comprehension and study skills for level E, since the relevant word attack skills were covered in the first four booklets. Only one level was provided for grades four through six due to the fact that no defensible hierarchy of skills could be delineated and thereby included in the Skills Outline. Differences at these grades are, to borrow a cliche, differences in degree, not in kind. Differences in levels of sophistication are expected to occur at these three grade levels as would be described by a spiral curriculum concept.

Quite naturally, teachers' manuals are provided with the booklets. As with the Individual Assessment Exercises, norming and standardization procedures were not utilized in the construction of the instrument. The emphasis again was on a collection of exercises to help assess mastery.

Otherwise, the writing of WEIRD proceded in the standard fashion of test development: clusters of items were written with more items than were desired for the finished product of the pilot version. These extended clusters were given in two elementary schools and questionable items were deleted according to informal analysis of the results.

The first construction of WEIRD took but six months and trial forms of it were printed in limited quantities in time for field testing in selected public schools during the fall of 1968. Feedback was sought concerning the pragmatic value of the instrument.

As WEIRD was being pressed into service in the field, it became apparent that it would be a real advantage to be able to use the results of the assessment without seeking a lot of other samples of skill mastery to diagnose either mastery or deficiency. To do so would require instruments with demonstrated precision - i.e., tests with proven reliability.

As we began the task of converting the exercises into tests with proven reliability, we were faced with the task of revising our standards for mastery. With the first edition of WEIRD, we had assumed that mastery would be represented by a perfect score on the skill assessments. This concept had to be changed since it would result in profiles incompatible with the theories of the normal curve and would not, therefore, yield us any estimates of reliability. Setting levels of mastery arbitrarily at levels of less than a perfect score was not felt to be any more rational. It was decided, therefore, to opt for a consensual or mean indication of mastery on tests with demonstrated high reliability.

Accordingly, WEIRD was administered to the populations of two elementary schools early in the fall of 1968. Because WEIRD was thought of as an instrument to assess mastery of skills the kindergarten test (Level A) was administered to the entering first graders, Level B was given to entering second graders, etc., on the assumption that these students could be said, on the average, to have mastered

the skills taught in the previous grade. The two pilot schools were chosen because their populations tended to be heterogeneous; the urban school had a mixed ethnic background, including a sizeable number of black students mixed with middle and some upper-middle class whites, while the other school reflected the wide range of ability which can be found in a rural setting. These two schools provided us with the data from more than 1,000 children for test analysis purposes.

The data were analyzed with the GENERALIZED ITEM ANALYSIS PROGRAM (GITAP), a computer program which is part of the Fortran Test Analysis Package by Baker and Martin (Baker and Martin, 1968). Detailed information is generated by this program and it has given us many results which we must ponder and use as we work to redevelop WEIRD.

In view of the small number of items in each cluster, the reliability of each was gratifyingly high. We had anticipated that demonstrating reliability would cause us to go to a larger number of items in each cluster and now anticipate that most clusters will be approximately doubled in size. This increase in size of the clusters is not thought to be such as to make the administration of the total test unwieldy; a large part of the time involved in administering the first version of WEIRD was spent in giving instructions for the various clusters. In other words, doubling the size of the clusters will not automatically double the length of time to administer the cluster. Reinforcing this decision to increase the size of the clusters were the comments of teachers who said that they would be able to use WEIRD with more confidence if there were more items per cluster.

Our field tryouts have convinced us that the concept behind the Prototypic System is both workable and desirable. The whole system is still, however, in a state of change and development. The evaluation instruments are receiving extensive review and modification to bring reliability up to acceptable levels. The clusters of WEIRD are being edited and lengthened as a result of the item analysis and the revised clusters are being tested in the schools as soon as they are revised. These retestings provide new data which is undergoing continued statistical scrutiny which may in turn lead to new revisions until reliabilities around the .90's can be reached.

The format of WEIRD is also up for extensive modification. At this point it appears that we will not be keeping the same fourteen booklets which we now have. We are anticipating going to a machine scoreable format wherever skills lend themselves readily to this type of testing to make the use of this system even more attractive. At this point, however, work is under way to test the effects of a machine scorable format on the responses made by kindergarten children, and the final decision on format will not be made until this project is complete. In addition, we perceive the possibility of using consumable tests in levels A, B, and C which are not bound into booklets but are printed on separate sheets of paper and pressed together into tablets. If a teacher wants to give 5 children the test on Consonant Blends she can take the pad of tests on Consonant Blends and tear out five copies of it. With levels D and E, we plan to have the test materials be non-consumables with separate answer sheets. The

ultimate format for which we strive is one which will neither persuade nor dissuade a teacher fr m using WEIRD as separate and independent subtests.

Because of a limited staff, our schedule calls for a semi-polished edition of WEIRD to be available for further field testing in the fall of 1969, but only in the area of Word Attack.

At the same time, informal reading inventories are being prepared, using two basal series. Assessment of reading skill using this type of instrument measures the reader's ability to apply the component skills in an integrated approach to the reading process. From a simultaneous focus on decoding and understanding, the teacher has an estimate of the child's independent, instructional, and frustration levels.

An analysis of decoding errors indicates error patterns, instructional needs, thereby supplementing the information gained by administering WEIRD. A reciprocal relationship exists showing the child's reaction to a skill when it is highlighted and when it is to be applied in a larger context. Using literal, inferential, and vocabulary questions, the teacher determines the child's strengths and needs in comprehension. Information from both types of inventory, i.e., WEIRD and an informal inventory, provides a basis for appropriate choices of instructional approaches and of materials for readers.

Some of the changes that have been made in WEIRD and some of the features which we feel make it unique are presented in the following transparencies.

REFERENCE

Baker, F. B., and Martin, T. J. Fortap: A Fortran Test Analysis Package. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1968.

APPENDIX

I. WORD ATTACK

II. COMPREHENSION

III. STUDY SKILLS

IV. SELF-DIRECTED READING

V. INTERPRETIVE SKILLS

VI. CREATIVE SKILLS

I. WORD ATTACK

Level C

_____1. Has sight word vocabulary of 100 to 170 words

_____2. Has phonic skills

_____a. Consonants and their variant sounds

_____b. Consonant blends

_____c. Vowel sounds

_____1) Long

_____2) Vowel plus R

_____3) A plus L

_____4) A plus W

_____5) Dipthongs OI, OY, OU, OW, EW

_____6) Long and short OO

_____d. Vowel rules

_____1) Short vowel generalization

_____2) Silent E rule

_____3) Two vowels together

_____4) Final vowel

_____e. Knows the common consonant digraphs

_____3. Has structural skills

_____a. Base words with prefixes and suffixes

_____b. More difficult plural forms

_____4. Distinguishes among homonyms, synonyms, and antonyms

_____a. Homonyms

_____b. Synonyms and antonyms

_____5. Has independent and varied word attack skills

_____6. Chooses appropriate meaning of multiple meaning words

IV. SELF-DIRECTED READING

LEVEL D

_____1. DEVELOPS VARIED PURPOSES FOR SELECTING MATERIAL

_____2. BEGINS TO DO INDEPENDENT RESEARCH ASSIGNMENTS

_____3. IS ABLE TO LOCATE SOURCES OF INFORMATION

_____4. APPLIES READING SKILLS TO SUBJECT MATTER AREAS

STUDENT PROFILE

WORD ATTACK

Level C

SKILL	NUMBER CORRECT
1. Sight vocabulary (15)*	_____
a. Beginning Errors _____	
b. Medial Errors _____	
c. Ending Errors _____	
2. Phonic analysis	
a. Consonants and their variant sounds (7)	_____
b. Consonant blends (10)	_____
c. Vowel sounds	
1. Long & short vowels (10)	_____
2. Vowel plus r, a plus l, a plus w (10)	_____
3. Diphthongs oi, oy, ou, ow, ew (10)	_____
4. Long & short oo (10)	_____
d. Common consonant digraphs (15)	_____
3. Structural skills	
a. Base words with prefixes and suffixes (10)	_____
b. Plurals (10)	_____
4. Homonyms, synonyms, and antonyms	
a. Homonyms (10)	_____
b. Synonyms and antonyms (10)	_____
5. Multiple meaning words (12)	_____

* Number in parenthesis equals total number of items in subtest.

STUDENT PROFILE

COMPREHENSION

Level C

SKILL	NUMBER CORRECT
1. Gains meaning from words, sentences, selections (18)*	_____
Literal comprehension (10)	_____
Inferential comprehension (8)	_____

* Number in parenthesis equals total number of items in subtest.

STUDENT PROFILE

STUDY SKILLS

Level C

SKILL	NUMBER CORRECT
1. Alphabetizes words (15)*	_____
2. Map reading (5)	_____
3. Follows directions (6)	_____

* Number in parenthesis equals total number of items in subtest.

banana
tree
funny
cat

1.	march
	here
	said
	time

6.	down
	tall
	up
	to

11.	did
	can
	mouse
	go

2.	said
	have
	did
	was

7.	new
	cat
	want
	did

12.	fun
	see
	three
	not

3.	nice
	apple
	soon
	take

8.	she
	lake
	too
	me

13.	no
	what
	nice
	baby

4.	home
	car
	one
	there

9.	home
	the
	please
	come

14.	down
	some
	ride
	man

5.	one
	ten
	does
	like

10.	make
	light
	not
	from

15.	play
	girl
	run
	hide

bunny
funny
fun
sun

1.	son
	some
	spoon
	soon

2.	mud
	ton
	not
	nut

3.	what
	that
	white
	when

4.	made
	make
	much
	cake

5.	my
	me
	he
	met

6.	please
	place
	play
	leaves

7.	then
	where
	these
	there

8.	one
	an
	once
	bone

9.	as
	us
	up
	cup

10.	help
	here
	there
	her

11.	say
	laid
	sled
	said

12.	side
	ride
	ring
	red

13.	new
	now
	mew
	need

14.	please
	plant
	play
	say

15.	corn
	cane
	man
	can

EXAMPLE:

tree		it	apple	tomorrow	tree

me		me	corner	at	does
one		to	one	about	why
do		some	tree	do	play
fun		suit	kitten	want	fun
up		other	up	the	find

EXAMPLE: up	under ☐	up ☐	pup ☐	other ☐
1. cat	at ☐	tac ☐	cap ☐	cat ☐
2. do	od ☐	dot ☐	do ☐	den ☐
3. one	on ☐	one ☐	once ☐	noe ☐
4. fun	fan ☐	nuf ☐	fin ☐	fun ☐
5. was	saw ☐	mas ☐	wat ☐	was ☐
6. top	tap ☐	pot ☐	toq ☐	top ☐
7. me	we ☐	em ☐	me ☐	ma ☐
8. best	bcst ☐	dest ☐	bost ☐	bets ☐
9. elba	able ☐	elab ☐	bela ☐	elba ☐
10. rare	raer ☐	rare ☐	rera ☐	rara ☐

EXAMPLES:

(a) tiny - small A S
(b) fresh - stale A S

1.	rush -- hurry	A S
2.	yell -- shout	A S
3.	raise -- lower	A S
4.	better -- worse	A S
5.	quit -- stop	A S
6.	below -- above	A S
7.	most -- least	A S
8.	look -- stare	A S
9.	large -- big	A S
10.	hot -- cold	A S

EXAMPLE: day -- morning	same ☐	different ☐	opposite ☐
1. rush -- hurry	same ☐	different ☐	opposite ☐
2. black -- gray	same ☐	different ☐	opposite ☐
3. raise -- lower	same ☐	different ☐	opposite ☐
4. all -- some	same ☐	different ☐	opposite ☐
5. unlock -- open	same ☐	different ☐	opposite ☐
6. below -- above	same ☐	different ☐	opposite ☐
7. better -- worse	same ☐	different ☐	opposite ☐
8. hot -- warm	same ☐	different ☐	opposite ☐
9. quit -- stop	same ☐	different ☐	opposite ☐
10. fresh -- stale	same ☐	different ☐	opposite ☐

EXAMPLES:

(a).	one	more	(b).	one	more
1.	one	more			
2.	one	more			
3.	one	more			
4.	one	more			
5.	one	more			
6.	one	more			
7.	one	more			
8.	one	more			
9.	one	more			
10.	one	more			

EXAMPLE: apples	one ☐	more ☐
1. fox	one ☐	more ☐
2. eyes	one ☐	more ☐
3. boxes	one ☐	more ☐
4. bicycle	one ☐	more ☐
5. church	one ☐	more ☐
6. lady	one ☐	more ☐
7. dress	one ☐	more ☐
8. horses	one ☐	more ☐
9. noses	one ☐	more ☐
10. wheels	one ☐	more ☐

INITIAL CONSONANTS
Teacher Word List

Version 1

1. dog - bowl
2. fire - famous
3. see - some
4. horse - fish
5. mother - nurse

1. man
2. pony
3. go
4. not
5. lady

Version 2

1. glass - ga (ha)
2. fright - famous
3. met - net
4. dog - tig (big)
5. bridge - cridge
6. stand - size
7. dimple - tackle
8. banish - vanish
9. rise - ressy (messy)
10. chlor (floor) - case

child's answer sheet

1.	man	d	m	t	b
2.	tiny	d	f	l	t
3.	nat	m	n	r	t
4.	lady	r	d	l	t
5.	scratch	c	r	h	s
6.	sprig	p	r	s	g
7.	strainer	t	s	n	r
8.	freight	f	r	t	c
9.	capture	p	t	c	r
10.	vibrate	b	v	r	g

Two Snakes

Boa constrictors are large snakes found in the tropical parts of America. They are not poisonous snakes. They grow to be 10 to 14 feet long. These snakes kill animals for food by squeezing them. You can see a boa at many zoos. The boa constrictor can stretch its jawbone to swallow some animals larger than its head.

The South American coral snake is found in the tropics of South America. They are poisonous snakes. The South American coral snake grows to be about 4 feet long. My brother is four feet tall, the same size as this snake. These snakes are dangerous if stepped on or handled. They kill by biting their victims.

Two Snakes

I.

II.

EXAMPLE:

Some animals help farmers keep mice from the corn.
Others help farmers work.
Many animals give farmers food.
Some animals help farmers watch the barnyard.

a. Animals help farmers.
b. Animals are useful.
c. Animals help farmers in different ways.
d. Different kinds of animals help farmers in different kinds of ways.

1. Some birds build nests under the roof.
Many birds like nests in trees.
Some even make nests in tall grass.
A few birds make nests inside wood fence posts.

a. Where birds make nests
b. Birds build nests in different places.
c. Different kinds of birds build nests in different kinds of places.
d. Birds build nests.

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